



Tech Tips

TT 61-08-06

Date: 2008

2007-2015 EOS - Convertible Top Hall Sensor Diagnosis

February 13, 2015: Update to Model Year.

When a convertible top concern leads to a hall sensor diagnosis, it is requested the GFF test plan be run next. Reading of the sensors through the VSD can be accomplished using MVB 2 under the address "26-Roof Electronics". There will be 12 binary digits in this value block (13 for 2008 vehicles built after VIN 8V030000). If the state of one sensor does not change during top operation, try running a screwdriver tip (if the sensor has the magnet internally) or a magnet (for non-magnet sensors) past the sensor. If the state does change, check the gap between the sensor and the contact area or check the magnet that is installed in the corresponding pickup. The magnets are available separately in ETKA for the sensors that require them.

One wire (red/white changing to yellow at the sensors) provides voltage to ten of the sensors. The brown wire is the feed back to the module that reflects status of the sensor. To read a binary value of 1, there should be approx. 0.5 volts on the brown wire back to the module. To read a 0 value, there should be approx. 3.5 volts on the brown wire back to the module. If the display in the MVB 2 shows a G for only one sensor, check the brown wire to the module for a short to ground. If the value shows a V, inspect the brown wire for an open circuit or short to positive. If all 10 of the sensors that share a voltage feed are reading a G or a V, it is recommended to check the yellow (red/white) wire for a short to ground or open circuit.

Binary readings (in order by closing cycle)

Open: 000011110000**1**

Trunk fully open: 000010011001**1**

C segment vertical: 000010001001**1**

Top seated, trunk open, rear window up: 110010001001**0**

Top and trunk closed, rear window up: 110011100000**0**

Closed: 111101100110**0**

Short in brown wire or sensor G558 (top closed):111101100G10**0**

Short in yellow or red/white feed wire: 11GGGGGGGGGGGG**G**

Note: Last position in red indicates 2008 vehicle after 8V030000 with G672 (right stowage sensor).